

Application Number 10/607,940
Amendment dated 1 February 2006
Reply to Office Action of 4 October 2005

Remarks

Applicant has cancelled Claims 67–70 and 72, and has added new Claims 73–77. Therefore, Claims 1–8, 10–12, 16, 20–27, 29–32, 34–36, 38, 40–45, 47–50, 54–62, 64, 65, 71 and 73–77 are currently pending in this Application. Applicant thanks the Examiner for indicating that Claims 1–8, 10–12, 16, 20–27 and 71 are allowed.

Claims 29–32, 34–36, 38, 40–45, 47–50, 54–62, 64, 65, 67–70 and 72 stand rejected. Of the claims that currently stand rejected, Claims 29, 32, 64, 67–70 and 72 are independent. Applicant has amended the rejected independent Claims 29, 32 and 64 to overcome the grounds for rejection, as expounded below. Applicant has cancelled the rejected independent Claims 67–70 and 72.

Independent Claim 29 and Dependent Claims 30–31.

Claims 29–31 stand rejected under 35 U.S.C. §§ 101 and 112(12) as being directed to non-statutory subject matter and as being indefinite for failing to particularly pointing out and claim the subject matter that Applicant regards as the invention. Applicant thanks the Examiner for indicating that Claims 29–31 would be allowable if amended to overcome these rejections. Claim 29 has been amended to remove the dependency from Claim 1. Applicant therefore respectfully requests that the rejection of Claims 29–31 be withdrawn.

Independent Claim 32 and Dependent Claims 34–36, 38, 40–45, 47–50 and 54–62.

Independent Claim 32 stands rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,421,732 ("Taylor"). Taylor discloses an apparatus for teaching addition and subtraction that includes a game board and a plurality of dowels that each correspond to a particular number of units. See Taylor 2:13–25. Taylor discloses that the dowels are configured to be placed in two slots on the game board, which are referred to as the "addition slot" and the "subtraction slot". See Taylor 6:68–7:5. Taylor does not disclose number pieces that are "stackable atop each other", as is

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recited in amended Claim 32. The Examiner has previously taken the position that U.S. Patent 3,935,649 ("Harte") discloses a math teaching device comprising a base array for receiving pieces, wherein the device is configured to allow a user to stack the pieces on top of each other.

Applicant respectfully submits that it would not be obvious to modify the teachings of Taylor to use stackable segmented bars, as disclosed in Harte. A modification of the prior art is obvious only if there is some teaching, suggestion, or motivation to make the modification; this teaching suggestion or motivation may be found either explicitly or implicitly in the prior art references themselves or in the knowledge generally available to an ordinarily-skilled artisan. See MPEP 2143.01(I).

In this case, there is no suggestion to modify the teachings of Taylor to use the stackable segmented bars disclosed in Harte. In particular, all of the illustrated embodiments disclosed in Taylor use cylindrical dowels which would be impossible to stack atop each other. Taylor contains no teaching or suggestion to use dowels with flat upper and lower surfaces that could be stacked atop each other. Moreover, because the Taylor game board includes adjacent addition and subtraction slots, an ordinarily-skilled artisan would have no motivation to stack the dowels atop each other.

Furthermore, the Examiner's proposed modification would render the Taylor device unsatisfactory for its intended purpose; this is further evidence that there is no suggestion or motivation to make the proposed modification. See MPEP 2143.01(V). The purpose of the addition and subtraction slots in the Taylor device is to teach young children that, for example, eleven is the sum of seven and four. This concept can be taught using the Taylor device by placing a seven-unit dowel and a four-unit dowel next to each other in the addition slot, and observing that eleven units are filled in the addition slot. See Taylor 7:7-17. This purpose would be defeated if the seven-unit dowel and the four-unit dowel were stacked atop each other, since it would not be evident that the sum of the stacked dowels is eleven.

Moreover, the Examiner's proposed modification would change the principle of operation of the Taylor device; this is further evidence that there is no suggestion or motivation to make the proposed modification. See MPEP 214.01(VI). The Taylor

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device teaches addition by placing end-to-end, for example, a seven-unit dowel and a four-unit dowel. See Taylor 7:7-17 and Figure 5. In contrast, according to the teachings of Harte, addition is taught by placing smaller segmented bars on top of a larger segmented bar, so that the sum of the units of the smaller segmented bars equals the number of units of the larger segmented bar. See Harte 10:9-13 and Figure 36. Certainly, teaching addition by placing numbered dowels end-to-end uses a different principle of operation than teaching addition by stacking numbered segmented bars atop each other.

Based on the foregoing, Applicant submits that it would not be obvious to modify the teachings of Taylor to use stackable segmented bars, as disclosed in Harte. Therefore, Applicant respectfully submits that amended Claim 32 is allowable over all of the cited references, whether taken individually or in combination. Furthermore, because Claims 34-36, 38, 40-45, 47-50 and 54-62 depend from Claim 32, and further distinguish the claimed invention from the cited references, Applicant respectfully submits that dependent Claims 34-36, 38, 40-45, 47-50 and 54-62 are allowable over all of the cited references for at least the same reasons that Claim 32 is allowable. Applicant respectfully requests that the rejection of Claims 32, 34-36, 38, 40-45, 47-50 and 54-62 be withdrawn.

Independent Claim 64 and Dependent Claim 65.

Claims 64 and 65 stand rejected under 35 U.S.C. §§ 101 and 112(¶2) as being directed to non-statutory subject matter and as being indefinite for failing to particularly pointing out and claim the subject matter that Applicant regards as the invention. Claim 64 has been amended to remove the dependency from Claim 32. Applicant therefore respectfully requests that the rejection of Claims 64 and 65 be withdrawn.

Independent Claims 67-70 and 72.

Independent Claims 67-70 and 72 have been cancelled, and thus Applicant respectfully requests that the rejection of Claims 67-70 and 72 be withdrawn.

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New Claims 73–77.

New Claims 73 and 74 recite a mathematics education kit wherein, among other things, “the number pieces are stackable atop each other by inserting a portion of a first stacked number piece into a number piece receiving position of a second stacked number piece” and “the receiving positions on the array are labeled with numbers, and wherein the receiving position number labels are disposed adjacent to the corresponding receiving position”. These features are fully disclosed in the original application as filed; see for example paragraph [0040] and Figures 2 and 3. The combination of elements recited in new Claims 73 and 74 is neither taught nor suggested by the cited references.

New Claims 75 and 76 recite a mathematics education kit wherein, among other things, “the receiving position number labels are positioned (a) adjacent to the corresponding receiving position, and (b) between two rows in the array”. New Claim 76 further recites, among other things, that “the receiving position number labels are positioned on a raised element located between two rows in the array”. These features are fully disclosed in the original application as filed; see for example Figure 1. The combination of elements recited in new Claims 75 and 76 is neither taught nor suggested by the cited references.

New Claim 77 depends from independent Claim 64, and further distinguishes the claimed invention from the cited references. Therefore, Applicant respectfully submits that dependent Claim 77 is allowable over the cited references for at least the same reasons that Claim 64 is allowable.

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Conclusion.

Based on the foregoing, Applicant submits that the pending claims are in condition for allowance, and respectfully requests that the outstanding Claim rejections be withdrawn. If, however, some issue remains that the Examiner feels can be addressed by an Examiner's Amendment, the Examiner is cordially invited to call the undersigned for authorization.

Respectfully submitted,

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Dated: _____

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By: _____

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